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ABSTRACT

During the teacher workshop conducted at the Glen Helen Outdoor Education Center at Yellow Springs, Ohio, oral language techniques, Mexican American culture, and outdoor education were given high priority in training teachers to serve migrant children effectively. Four of the workshop presentations have been adapted for this publication. One of these, a rationale for oral language development, contains 12 pattern drills which can be used by any classroom teacher to help children master basic English language patterns; some of the types of drills presented are repetition drills, substitution drills, transformation drills, conversation drills, and addition drills. Another presentation, entitled Helping Spanish-Speaking Children Who Say "Teach Me the English," offers similar and dissimilar patterns in word order and grammatical structure. The other sections are (1) The Future of the Mexican American--With an Optimistic Eye and (2) Outdoor Education Resources and Activities. Each section contains pictures as well as a narrative discussion of the presentation. (JB)

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I Do and I Understand

Glen Helen Workshop: April 29-May 1, 1971

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MARTIN W. ESSEX
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Foreword

Teachers of migrant children have the challenge of motivating and creating empathy with youngsters who not only move with the seasons but who find themselves in a strange culture. In addition, these are children who are caught in a new economy that is leaping from hand labor to power driven, automated equipment. The advancing technology requires suitable education if self-respecting citizenship is to be attained in their adult lives.

Mobility and language barriers are two of the pressing challenges. Although migrant children spend only part of their school year in Ohio, that time must be utilized to provide them with a maximum educational experience to serve their unique needs.

Inservice training is one way teachers can learn to understand migrant children, their language problems, and related educational needs. At a workshop conducted April 29 through May 1, 1971, at the Glen Helen Outdoor Education Center in Yellow Springs, oral language techniques, Mexican American culture, and outdoor education were given high priority in effectively serving migrant children.

I would like to acknowledge and extend my appreciation to the seminar participants, to the Glen Helen staff, and especially to Rosie Barajas Pinson, Benito Rodríguez, and J. Douglas Dickinson, whose workshop presentations have been adapted for this publication.

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I Do and I Und

(A Rationale for Oral Langu

Rosie Barajas P

The language of the Mexican American during his childhood is predominantly Spanish and his personality and experiences by the time he enters school have been shaped by it. More often than not, a Mexican American child comes to school speaking little or no English. He, therefore, encounters many trauma-filled experiences if he must have academic instruction in a second language. The N.E.A. Tuscon Survey comments on the problem, as follows:

He suddenly finds himself not only with the pressing need to master an alien tongue, but also at the same time, to make immediate use of it in order to function as a pupil. His parents, to whom he has always looked for protection and aid, can be of no help at all to him in his perplexity. Moreover, as a result of cultural and economic differences between the English-speaking and the Spanish-speaking segments of his community, many of the objects, social relationships and cultural attitudes presented to him in lessons, though

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A child who enters school with little English not only has to learn a new language but many subjects which are supposedly pertinent to his development as a contributing member of the community. This puts him at a serious disadvantage. He often fails to advance in school because activities are conducted in a language he does not understand. Another reason for failure may be inability to comply with the expected rate of achievement set for him by middle-class English-speaking educators.

[1] *The Invisible Minority . . . Pero No Vencibles,* Report of the N.E.A. Tuscon Survey on the Teaching of Spanish to the Spanish-Speaking. Washington, D. C.: National Education Association, Department of Rural Education, 1966.

His failure is really no fault of his own. He cannot be expected to succeed without being able to function, to some extent, in English. *What can we do to help him?* Oral language techniques could be the answer. Through the oral approach we can help him learn English quicker and in a more logically sequential order than if we were to give him a book and expect him to learn from it.

Oral Language Techniques

The oral approach, which ensures that the learner receives his initial contact with the material through the ear, is a very effective means of learning a language. It builds on the concept that one must first hear and say something before he can read it and write it. The reason for the oral approach is the need for establishing an awareness of the basic patterns of a language before progressing to reading and writing. It requires the learner to learn expressions so thoroughly that he can reproduce them automatically. This does not mean that reading and writing are ignored. Instead, they are used to strengthen control of the language. As stated by Rojas and others:

The oral approach not only permits the use of reading and writing, but employs every other procedure that helps thorough building up of the new language habits. It distinguishes sharply between learning about a language for use, and, in the early stages of mastery, subordinates all statements about the language that do not clearly aid the practical use of the language in communication.[2]

In other words, *the oral approach yields more results in learning a language than "book learning."*

Pattern Drills

Speaking practice (oral drill) is most instrumental in language learning. Oral drills are considered the essential key to learning a new language because they provide the practice the learner needs in hearing and saying the new language. Remember, *a child cannot learn a language by reading about it or by hearing someone else speak it. He must practice speaking the language himself.*

Language learning has a lot more in common, in the early stages at least, with learning to play the piano than it does with studying history or mathematics. You can't learn to play the piano by

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Language learning has a lot more in common, in the early stages at least, with learning to play the piano than it does with studying history or mathematics. You can't learn to play the piano by listening to somebody else do it, and you can't learn a language without talking.[3]

English as any other language cannot be learned through analysis. A child cannot be given a set of rules and be expected to learn English by memorizing them. Much practice is needed since learning a new language means acquiring new habits or ways of using the speech organs and learning the forms and arrangement of the forms required by the system. It means obtaining the new habits through intensive and extensive listening, repeating, and practicing of numerous examples until they become automatic. Moreover, practice is necessary so the learner will be able to produce a pattern and concentrate on the subject of conversation without falling back on past habits or making systematic distortions because of his native language habits.

Pattern drills teach the language through analogy based on forms the learner has already learned through imitation. *Pattern practices are not communication. They are solely for the purpose of practice in order that performance may become habitual and automatic.*

[2]Pauline Rojas and others, *Fries American English Series: For the Study of English as a Second Language, Teachers' Guide VI.* Boston: Heath and Co., 1953.

[3]*Intensive Course in English, Teacher's Manual.* Washington, D. C.: English Language Services, Inc., 1962, pp 3-4.

Teachers Do and Understand

The twelve pattern drills which follow can be used to help children master basic English language patterns. Any classroom teacher can readily learn to use these oral language techniques.

1. Repetition Drills. The learners are to listen carefully to the model sentence and repeat it, imitating the teacher's pronunciation and intonation. Repetition should be continued until complete mastery is achieved.

Teacher: I will go to school.
Learners: I will go to school.
Teacher: I will go to town.
Learners: I will go to town.

2. Substitution Drills. Drills involving substitution are of several types including simple substitution, variable position substitution, and double substitution.

For simple substitution drills, present a model sentence and have it repeated by the learners. Then show, by example, how one word can be replaced by another without changing the basic sentence pattern. To continue the drill, provide a cue and have the learners respond by substituting the cue in the basic sentence pattern.

Teacher: I will go to school. To town.
Learners: I will go to town.
Teacher: To play.
Learners: I will go to play.

Simple substitution in variable positions should be the next step. One at a time, the subject may be changed, then the verb, then the object, and then the modifier.

Teacher: Juan should go to school tomorrow. Maria.
Learners: Maria should go to school tomorrow.
Teacher: Will.
Learners: Maria will go to school tomorrow.
Teacher: To town.
Learners: Maria will go to town tomorrow.
Teacher: Soon.
Learners: Maria will go to town soon.

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Learners: Maria will go to school tomorrow.
Teacher: To town.
Learners: Maria will go to town tomorrow.
Teacher: Soon.
Learners: Maria will go to town soon.

For double substitution drills two cues are given and substituted in the pattern.

Teacher: The wind is cold today. Sun. Warm.
Learners: The sun is warm today.
Teacher: The meeting was long. Movie. Short.
Learners: The movie was short.

3. Transformation Drills. For transformation drills, a sentence can be transformed from positive to negative or from a statement to a question. Transformation changes may also be in tense or voice.

Teacher: That is your sweater. Not.
Learners: That is not your sweater.
Teacher: The children are happy. Were.
Learners: The children were happy.
Teacher: That is your book. Question.
Learners: Is that your book?
Teacher: It was a rainy day. Reverse.
Learners: The da. was rainy.

4. Conversation Drills. Conversation drills are used with individuals rather than groups. Another difference is that the learner chooses what he wants to say when asked a question. One pupil can question another pupil to create a chain of questions and answers.

Teacher: Jose, did you watch TV last night?

Jose: No, I did homework last night. Eddie, did you do homework last night?

Eddie: Yes, I did some arithmetic last night. Rosa, did you do homework last night?

Rosa: No, we went to the laundry last night. Mary, did you . . . ?

5. Addition Drills. For addition drills the sentence is enlarged as new words are added.

Teacher: The men work.

Learners: The men work.

Teacher: Hard.

Learners: The men work hard.

Teacher: In the fields.

Learners: The men work hard in the fields.

Teacher: When tomatoes are ripe.

Learners: The men work hard in the fields when tomatoes are ripe.

6. Backward Build-Up Drills. Backward build-up drills are especially effective in practicing long sentences.

Teacher: To chop beets and pick pickles.

Learners: To chop beets and pick pickles.

Teacher: Come to Ohio to chop beets and pick pickles.

Learners: Come to Ohio to chop beets and pick pickles.

Teacher: Many families from Texas come to Ohio to chop beets and pick pickles.

Learners: Many families from Texas come to Ohio to chop beets and pick pickles.

7. Integration Drills. For integration drills the teacher models two sentences or utterances. The learners respond with one integrated sentence.

Teacher: The house is little.
They live in the house.

Learners: They live in the little house.

Teacher: The soup is hot.
I ate the soup.

Learners: I ate the hot soup.

8. Completion Drills. For completion drills the teacher provides utterances that are complete except for one word. The learners repeat the utterance in its completed form.

Teacher: My pies are good, but my mother's are . . . .

Learners: My pies are good, but my mother's are better.

Teacher: I'll pay for my lunch and you pay for . . . .

Learners: I'll pay for my lunch and you pay for yours.

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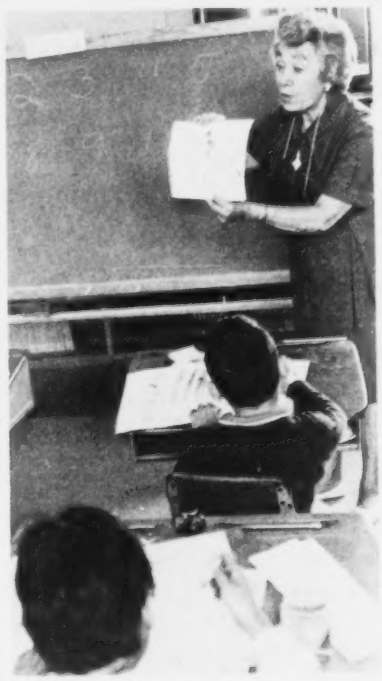

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Learners: My pies are good, but my mother's are better.

Teacher: I'll pay for my lunch and you pay for . . . .
Learners: I'll pay for my lunch and you pay for yours.

9. Replacement Drills. For replacement drills one utterance is replaced by another.

Teacher: Alma ate a piece of pie.
Replace Alma.
Learners: She ate a piece of pie.

Teacher: Manuel gave Joe the football.
Replace Joe.
Learners: Manuel gave him the football.

Teacher: I read the comics on Sunday.
Replace comics.
Learners: I read them on Sunday.

Replacement and transformation drills can often be combined. An utterance is made, then one additional word is given which is then placed in the last utterance made.

Teacher: Alma has a new watch.
Replace Alma and substitute doll.
Learners: She has a new doll.
Teacher: Had.
Learners: She had a new doll.
Teacher: Dolls.
Learners: She had new dolls.

10. Restatement Drills. For this type of drill an individual learner rephrases an utterance and addresses it to someone else, according to instruction.

Teacher: Tell Juan to come here.
Learner: Come here, Juan.
Teacher: Ask Mary how she feels.
Learner: How do you feel, Mary?
Teacher: Ask him how many sides a cube has.
Learner: How many sides does a cube have?

11. Rejoinder Drills. For these drills individual learners are asked to make appropriate rejoinders to a given statement. Each learner is told in advance how he is to respond.

Teacher: He will become a doctor. Question what is said.
Learner: Are you positive?
Teacher: Disagree with the statement.
Learner: I don't believe it.
Teacher: He will become a doctor. Disagree emphatically.
Learner: I'm sure he won't.
Teacher: Fail to understand.
Learner: What did you say?
Teacher: Express regret.
Learner: I'm so sorry.
Teacher: He will become a doctor. Agree.
Learner: I think so, too.
Teacher: Agree emphatically.
Learner: I'm sure that's right.
Teacher: Express surprise.
Learner: Really!

Any appropriate answer should be accepted by the teacher. Conduct this and all other drills at a brisk pace to prevent boredom.

12. Restoration Drills. For restoration drills the learner is given basic words to form a sentence.

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Teacher: Girl, . . . sang, . . . well.
Learner: The girl sang well.
Teacher: Boy, . . . caught, . . . calf.
Learner: The boy caught the calf.
Teacher: Bill, . . . Tom, . . . friends.
Learner: Bill and Tom are friends.

Classroom Activities

Daily oral language practice sessions of twenty to thirty minutes in duration are seldom enough if language learning is to occur. As oral language is taught, the other classroom activities in which the child is involved throughout the day must not be forgotten. *Authorities in language teaching say that language learning requires over-learning—that is, practicing the patterns of the language until the learner no longer thinks of how he is going to say something. Rather, he concentrates on what he wants to say.* To help develop patterns the child needs repeated

encounters with the language throughout the day.

Correlating all classroom activities with oral language development can be used to strengthen language development. Teachers very often spend too much time teaching things children already know but cannot express because they lack language facility. Therefore, oral language in the content areas can be very effective, if used properly. For example, if during a lesson in social studies a child has the concept of the word *vehicle* but cannot verbalize it, the teacher can help him by modeling the correct pattern and following it up with a brief repetition drill.

Teacher: It's a vehicle.
Learner: It's a vehicle.
Teacher: A car is a vehicle.
Learner: A car is a vehicle.
Teacher: A bus is a vehicle.
Learner: A bus is a vehicle.

Such a drill helps the child learn to expres
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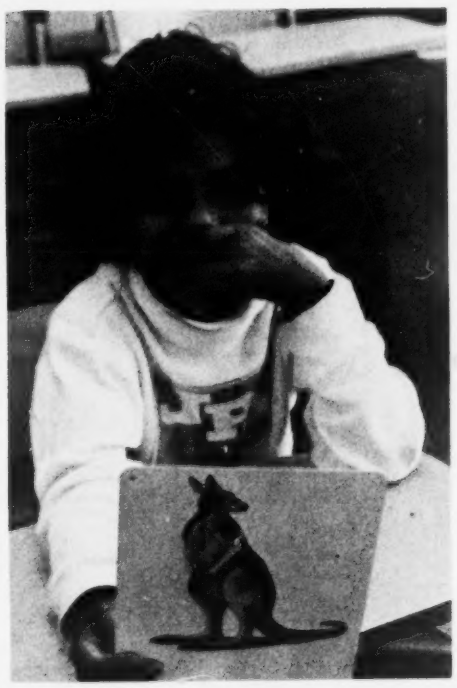
Children Do and Understand



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Such a drill helps the child learn to express something for which he has a concept but for which he lacks the English with which to express it.

Pattern drills can also be used to develop and reinforce new concepts presented. *I firmly believe, after learning through experience in my own classroom, that a child can learn something faster if he can say it. We cannot expect a child to be able to learn from a book if he cannot read it.* Therefore, when this is the case, the teacher can select concept clusters from the textbook to formulate sentence patterns which can be used to develop oral pattern drills. The teacher can use several of the drills described on pages 6 through 8 to help teach these concepts.

Teaching oral language in a variety of content areas provides a higher level of interest than practice only for the sake of language development. The learner can attach words to ideas and things and relate words to feelings and experiences. This approach encourages him to remember and recognize words — a most important step in reaching the ultimate goal, the ability to communicate with ease.

Through success-oriented experiences in language learning, nourishment of a strong personal identity is possible. It is important that the child learn a language in such a way that he feels successful. In that way he will feel he is a worthy, contributing member of a larger society.

To summarize, a Mexican American child might use this ancient Chinese proverb to tell about the way he learns English:

I hear . . . and I forget.
I see . . . and I remember.
I do . . . and I understand.

The *I do* is the actual practicing of the language through oral language techniques.

BENITO RODRÍGUEZ
Language Consultant
Public Schools
El Paso, Texas

"Enseñame el

(Helping Spanish-Speaking Children Wh

Migrant teachers need to be able to help Spanish-speaking children gain control of the English language – its sounds, rhythm, intonation, and patterns. Knowledge of the following similarities and differences in the two languages (compiled by Benito Rodríguez, language consultant for the El Paso Public Schools, and speaker at the Glen Helen Migrant conference) should prove helpful.

Sound Substitutions

The problems Spanish speakers have in the use of English sounds often result from efforts to produce sounds based upon somewhat similar sounds that exist in Spanish. Failure to approximate English sounds interferes with intelligibility and frequently conveys unintended meaning.

What is Said	What Is Intended
He is sinking.	*He is thinking.*
I am living.	*I am leaving.*
I watched the baby.	*I washed the baby.*
They saw the cot.	*They saw the cat.*
I like jello.	*I like yellow.*

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"Enseñame el Inglés"

(Helping Spanish-Speaking Children Who Say "Teach Me the English")

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Consonant Sounds

Consonant approximations of Spanish speakers include the following:

- For *th*, as in *thumb, thin,* and *path,* the speaker will usually produce an *s* sound, resulting in *sum, sin, pass* or the *t* sound resulting in *tum, tin, pat.*
- For *th*, as in *the, though,* and *this,* the soft *d* sound is produced resulting in *de, dough, dis.*
- The *sh*, as in *she* and *shoe,* becomes the voiceless *s* – *see, sue* or the *ch* sound – *chee, chew.*
- The voiced *s*, as in *zinc, rise,* and *zoo,* is produced as a voiceless *s* – *sink, rice, sue.*
- The *b* sound, as in *bar* and *cab,* becomes the *p* sound – *par, cap.*
- The *v* sound, as in *vote, veil,* and *vest,* becomes the *b* sound – *boat, bail, best.*
- The *d* sound, as in *din* and *den,* becomes the *t* sound – *tin, ten.*
- The *j* sound, as in *jar* and *judge,* is said as the *ch* sound – *char, chuch.*
- The *ch*, as in *watch, catch,* and *chew,* is said as the *sh* sound – *wash, cash, shoe.*
- The *y* sound, as in *use* and *yellow,* becomes the *j* sound – *juice, jello.*

- The *n* sound in a final position, as in *thin* and *run*, becomes the *ng* sound – *thing, rung.*
- The *m* sound in a final position, as in *comb, dime,* and *some,* becomes the *n* sound – *cone, dine, son.*
- The *g* sound, as in *dug, goat,* and *pig,* becomes the *k* sound – *duck, coat, pick.*
- For the *w* sound, as in *way* and *woman,* a *g* sound is usually added resulting in *gway* and *gwoman.* (In Spanish the *w* sound is preceded by the *g* sound – *agua, guante, guapo.*)

Vowel Sounds

Vowel sound problems of Spanish-speaking children learning to control the English language include the following:

- When attempting *pat, cat,* and *map,* the speaker will usually say *pot, cot,* and *mop,* or after many attempts to approximate the sound, say *pet, ket,* and *mep.*
- In contrast to the above approximations, *pot, cot,* and *hot* may be said as *pat, cat,* and *hat.*
- Approximation of the vowel sound in *done, sung,* and *cut* often results in *dawn, song,* and *caught.*
- *Leave, feel,* and *sheep* may become *live, fill,* and *ship,* or just the opposite.
- *Late, mate,* and *gate* may become *let, met,* and *get,* or just the opposite.
- *Pool* and *fool* may become *pull* and *full,* or just the opposite.
- *Coal, bowl,* and *hole* may become *call, ball,* and *hall.*

Consonant Clusters

In addition to the problems of understanding and producing the significant consonant and vowel sounds of English just indicated, the Spanish-speaking learner is also faced with the problem of consonant clusters. Many English clusters do not exist in Spanish, or, if they do exist, do not occur in the same positions. For example, the *kt* cluster appears in Spanish in such words as *acto, tacto,* and *octavo,* but does not appear in final position

in Spanish words. Hence, the Spanish-speakin person has difficulty in producing the *kt* com bination in such words as *act, walked, talke* and *liked.* The *sp* cluster appears in th Spanish in such words as *espanol, espeso,* an *esposa.* Since it is always preceded by the sound in Spanish, the Spanish speaker wi tend to hear and say the *e* sound as precedin the initial *sp* in English. Hence, he will sa *espeak* for *speak, estudy* for *study,* etc.

The sound clusters underlined in the follow ing words illustrate the basic consonant clus ters that do not appear in initial position Spanish words: *store, speak, small, snow, sk sleep, street, screw, spring, square.*

The words *few, cure, mule, beautiful,* an *pure,* in which the *y* sound is clustered wit the initial sound, illustrate basic clusters English sounds that do not occur in initi positions in Spanish words.

The sound clusters underlined in the follow ing words illustrate the basic consonant clu ters that do not appear in final position Spanish words: *land, hunt, fast, fence, ol box(ks), world, sink, act, change, melt, des help, milk, health, first, ask, bench, left, fil tenth, hands, fifth, eighth, clubs, bags, fal rooms, lives, builds, saves, burns, warms, ca cabs, laughs, boots, breathes, tifts, walks, live raised, pushed, pulled, touched, watche danced, cashed, helped.*

The teacher must expect Spanish-speakin pupils to require special help with consonan and consonant clusters like those listed he

Rhythm

Rhythm in language is a matter of stre and speed. In English, stress is rather reg larly spaced in terms of time interval betwe accented syllables. For example, in the follo ing sentence each of the three sections tak about the same time to say: *the cow – lives the farm – next to my uncle's house.* That *the cow* (2 syllables) takes about as long

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Spanish-speaking
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The sound clusters underlined in the following words illustrate the basic consonant clusters that do not appear in final position in Spanish words: *land, hunt, fast, fence, old, box(ks), world, sink, act, change, melt, desk, help, milk, health, first, ask, bench, left, film, tenth, hands, fifth, eighth, clubs, bags, falls, rooms, lives, builds, saves, burns, warms, caps, cabs, laughs, boots, breathes, tifts, walks, lived, raised, pushed, pulled, touched, watched, danced, cashed, helped.*

The teacher must expect Spanish-speaking pupils to require special help with consonants and consonant clusters like those listed here.

Rhythm

Rhythm in language is a matter of stress and speed. In English, stress is rather regularly spaced in terms of time interval between accented syllables. For example, in the following sentence each of the three sections takes about the same time to say: *the cow – lives on the farm – next to my uncle's house.* That is, *the cow* (2 syllables) takes about as long to say as *lives on the farm* (4 syllables) and *next to my uncle's house* (6 syllables). In order to maintain this regular rhythm, English speakers accelerate their production of unaccented syllables between stressed syllables.

The Spanish speaker cannot, when first encountering English, reproduce a steady language rhythm or understand it because of the tendency in Spanish to produce all syllables at about the same rate of speed. In addition, there are some features of stress in Spanish which tend to carry over into English and to contribute to what some may consider a characteristic Spanish accent. For example, the Spanish speaker tends to stress the following language elements which the English speaker never stresses in everyday matter-of-fact speech:

- The articles *a, an, the*
- The possessive adjectives *my, your, his, her, its, our, their*
- The prepositions *in, on, off, under, to*
- The pronouns *I, me, we, us, he, him, you, they, them, she, her, it*
- Any form of the verb *be* and the auxiliary verbs
- The conjunctions *and, or, as, that, although*

Intonation

The rise and fall of the voice make up the intonation or melody patterns of a language. The intonation patterns of English differ from those of Spanish. As in the case of the sounds and the rhythm, the Spanish-speaking person will tend to carry over into English the intonation patterns of his original language. For example, in English the polite request pattern uses a falling intonation: *Please open the door.* In Spanish, however, the polite request uses a rising intonation.

Features of intonation are complicated and do not lend themselves to simple generalizations. For a more complete discussion, the reader is referred to *The Intonation of American English* by Kenneth L. Pike.

Similar Patterns in Word Order and Gramm

Migrant teachers should familia
similar in Spanish and English.
opportunity that arises to help ch
addition, teachers should create
meaningful practice.

Similar Patterns

Nouns can be used as the subject of statements.	*The bo* *The pe*
I can be used as the subject of a statement.	*I play.* *I sing.*
Possessive adjectives can occupy pre-noun positions. In Spanish such words agree in number, and in most cases in gender, with the noun modified.	*My fath* *Our ho* *Our ho*
Articles can occupy pre-noun positions. In Spanish they change in form to agree with the noun.	*a book* *a hous* *the bo* *the bo*
Adjectives occur frequently after a form of the verb *be*. In Spanish, the adjective agrees in number and gender with the noun it modifies.	*The do* *The do* *The ho* *The ho*
Demonstrative pronouns appear frequently before a form of the verb *be*. The forms of demonstrative pronouns are more varied in Spanish than in English.	*This is* *These* *Those*
Demonstrative pronouns occur regularly in pre-noun positions. In Spanish they agree in number and gender with the noun modified.	*this bo* *that b* *these* *those*
Direct objects can occupy post-verb positions.	*I see t* *I wrote*
Indirect objects can be used with the *to* form. Spanish lacks the alternative English form in which the first example could be stated: *The boy gave the girl the book.*	*The bo* *girl.* *Rosa s*

Similar Patterns in Word Order and Grammatical Structure

Migrant teachers should familiarize themselves with patterns that are similar in Spanish and English. Advantage should be taken of every opportunity that arises to help children use these patterns correctly. In addition, teachers should create situations that provide occasion for meaningful practice.

Similar Patterns	English	Spanish
Nouns can be used as the subject of statements.	*The book is here.* *The pen is here.*	*El libro está aquí.* *La pluma está aquí.*
I can be used as the subject of a statement.	*I play.* *I sing.*	*Yo juego.* *Yo canto.*
Possessive adjectives can occupy pre-noun positions. In Spanish such words agree in number, and in most cases in gender, with the noun modified.	*My father is tall.* *Our house is big.* *Our houses are big.*	*Mi papá es alto.* *Nuestra casa es grande.* *Nuestras casas son grandes.*
Articles can occupy pre-noun positions. In Spanish they change in form to agree with the noun.	*a book* *a house* *the boy* *the boys*	*un libro* *una casa* *el muchacho* *los muchachos*
Adjectives occur frequently after a form of the verb *be*. In Spanish, the adjective agrees in number and gender with the noun it modifies.	*The doll is big.* *The dolls are big.* *The house is high.* *The houses are high.*	*La muñeca es grande.* *Las muñecas son grandes.* *La casa es alta.* *Las casas son altas.*
Demonstrative pronouns appear frequently before a form of the verb *be*. The forms of demonstrative pronouns are more varied in Spanish than in English.	*This is my mother.* *These are big.* *Those are small.*	*Esta es mi mamá.* *Estos son grandes.* *Estas son grandes.* *Esos son pequeños.* *Esas son pequeñas.* *Aquellos son pequeños.* *Aquellas son pequeñas.*
Demonstrative pronouns occur regularly in pre-noun positions. In Spanish they agree in number and gender with the noun modified.	*this book* *that book* *these books* *those books*	*este libro* *ese libro* *estos libros* *esos libros*
Direct objects can occupy post-verb positions.	*I see the book.* *I wrote a letter.*	*Yo veo el libro.* *Yo escribí una carta.*
Indirect objects can be used with the *to* form. Spanish lacks the alternative English form in which the first example could be stated: *The boy gave the girl the book.*	*The boy gave the book to the girl.* *Rosa sent a letter to Mary.*	*El muchacho dió el libro a la niña.* *Rosa mandó una carta a Mary.*

Dissimilar Patterns in Word Order and Grammatical Structure

When a Spanish-speaking child says "The boy not drink his milk," or "The tomato is more big," or "The head hurts me," he is using patterns in word order and grammatical structure that exist in Spanish but not in English. Selected dissimilar patterns migrant teachers should be aware of are illustrated below.

Dissimilar Patterns	English	Spanish
In English the pronoun is expressed as the subject of the statement and question pattern. In Spanish the pronoun subject (except for most instances with *l*) is not usually expressed. Instead, verbal inflection is used to indicate person and number.	*It is round.*	*Es redondo.* *(Is round.)*
	She can sing.	*Puede cantar.* *(Can sing.)*
	Is he a policeman?	*¿Es policía?* *(Is policeman?)*
In English *not* is used after the verb or within the verb phrase to express negation. In Spanish *no* is used in pre-verb positions.	*Mary is not here.*	*María no esta aqui.* *(Maria not is here or Maria no is here.)*
	The horse does not eat meat.	*El caballo no come carne.* *(The horse not eat meat or the horse no eat meat.)*
In English the uninflected adjective form is in front of the noun. In Spanish the adjective usually follows the noun modified and agrees in number and gender.	*the big dog*	*el perro grande* *(the dog big)*
	the big dogs	*los perros grandes* *(the dogs big or the dogs bigs)*
In English the suffixes *-er* and *-est* can often be added to adjectives to form the comparative and superlative, respectively. In Spanish, the word *más (more)* and the words *el más, la más, los más, las más (the most)* are used before the adjective.	*The pumpkin is bigger.*	*La calabaza es más grande.* *(The pumpkin is more big.)*
	My father is the tallest in the family.	*Mi papá es el más alto de la familia.* *(My father is the most tall of the family or the more tall.)*
In English the sounded suffix *-s* is customarily used to indicate present tense for third person singular, variously pronounced as *s (walks), z (pays),* and *es (catches).* In Spanish, there is a tendency to aspirate the final *-s* sound or drop it in pronunciation.	*The boy eats candy.*	*El muchacho come dulces.* *(The boy eat candy.)*
	My sister goes to school.	*Mi hermana va a la escuela.* *(My sister go to the school.)*
	My brother watches television.	*Mi hermano ve la televisión.* *(My brother watch the television.)*

ord Order and Grammatical Structure

nish-speaking child says "The boy not drink his milk," or more big," or "The head hurts me," he is using patterns in d grammatical structure that exist in Spanish but not in ted dissimilar patterns migrant teachers should be aware ed below.

s	English	Spanish
expressed ment and h the pro- most in- sually ex- flection is d number.	*It is round.*	*Es redondo.* *(Is round.)*
	She can sing.	*Puede cantar.* *(Can sing.)*
	Is he a policeman?	*¿Es policía?* *(Is policeman?)*
r the verb to express s used in	*Mary is not here.*	*María no esta aqui.* *(Maria not is here or Maria no is here.)*
	The horse does not eat meat.	*El caballo no come carne.* *(The horse not eat meat or the horse no eat meat.)*
adjective . In Span- llows the n number	*the big dog*	*el perro grande* *(the dog big)*
	the big dogs	*los perros grandes* *(the dogs big or the dogs bigs)*
and *-est* ectives to superla- nish, the words *el* *más (the* adjective.	*The pumpkin is bigger.*	*La calabaza es más grande.* *(The pumpkin is more big.)*
	My father is the tallest in the family.	*Mi papá es el más alto de la familia.* *(My father is the most tall of the family* or *the more tall.)*
uffix *-s* is e present ular, var- *walks), z* Spanish, pirate the pronun-	*The boy eats candy.*	*El muchacho come dulces.* *(The boy eat candy.)*
	My sister goes to school.	*Mi hermana va a la escuela.* *(My sister go to the school.)*
	My brother watches television.	*Mi hermano ve la televisión.* *(My brother watch the television.)*

Dissimilar Patterns in Word Order and Gr

Dissimilar Patterns

In English the sounded suffix *-s* is also used to form regular plurals. The sounds and the dissimilarities for Spanish speakers are the same as for the verbs above.

The bo

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In English the suffix *-ed* is used to form the past tense of regular verbs, variously pronounced as *t (walked)*, *d (called)*, and *ed (needed)*. In Spanish, past tense is expressed by adding inflected endings to regular verbs. The Spanish inflections, which are unrelated to the English suffix *-ed*, are *-é (hablé)*, *-ó (habló)*, *-í (escribí)*. In addition, the Spanish language does not have many of the consonant clusters that appear when combined with the *-ed* suffix as in *-kt (walked)*, *-ld (called)*, *-ft (laughed)*.

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In English the auxiliary *will* plus the simple, uninflected form of the verb is used to express future tense. Spanish has no auxiliary equivalent to *will*. Rather, inflections are added to the infinitive form of the verb to express the future, among which are *-e (hablaré)*, *-a (hablará)*, *-an (hablarán)*, *-emos (hablaremos)*.

The gi

The bo

In English *am*, *is*, and *are*, plus *going to* plus the uninflected basic form of the verb are used to express future tense. Spanish uses the notion of *go* plus the notion of *to (voya, vas a, va a)* plus the infinitive form of the verb for future. However, the forms of the corresponding expressions are quite different.

I am g

She is

Dissimilar Patterns in Word Order and Grammatical Structure (continued)

Dissimilar Patterns	English	Spanish
In English the sounded suffix *-s* is also used to form regular plurals. The sounds and the dissimilarities for Spanish speakers are the same as for the verbs above.	*The books are here.* *The pencils are there.* *The houses are red.*	*Los libros están aquí.* *(The book are here.)* *Los lápices están allá.* *(The pencil are there.)* *Las casas son coloradas.* *(The house are red.)*
In English the suffix *-ed* is used to form the past tense of regular verbs, variously pronounced as *t (walked), d (called),* and *ed (needed).* In Spanish, past tense is expressed by adding inflected endings to regular verbs. The Spanish inflections, which are unrelated to the English suffix *-ed,* are *-é (hablé), -ó (habló), -í (escribí).* In addition, the Spanish language does not have many of the consonant clusters that appear when combined with the *-ed* suffix as in *-kt (walked), -ld (called), -ft (laughed).*	*The clown laughed.* *The children played ball.* *The baby wanted milk.*	*El payaso se rió.* *(The clown laugh.)* *Los ninos jugaron bola.* *(The children play ball.)* *El bebe quiso leche.* *(The baby want milk.)*
In English the auxiliary *will* plus the simple, uninflected form of the verb is used to express future tense. Spanish has no auxiliary equivalent to *will.* Rather, inflections are added to the infinitive form of the verb to express the future, among which are *-e (hablooaré), -a (hablará), -an (hablarán), -emos (hablaremos).*	*The girl will dance.* *The boy will speak.*	*La muchacha bailará.* *(The girl dance.)* *El muchacho hablará.* *(The boy speak.)*
In English *am, is,* and *are,* plus *going to* plus the uninflected basic form of the verb are used to express future tense. Spanish uses the notion of *go* plus the notion of *to (voya, vas a, va a)* plus the infinitive form of the verb for future. However, the forms of the corresponding expressions are quite different.	*I am going to sing.* *She is going to dance.*	*Yo voy a cantar.* *(I go to sing.)* *Ella va a bailar.* *(She go to dance.)*

Dissimilar Patterns in Word Order and Grammatical Structure (continued)

Dissimilar Patterns	English	Spanish
In English the negative command pattern requires the use of the forms *do not, don't* followed by the uninflected form of the verb. Spanish uses *no* before different forms of the verb to express the command pattern.	*Do not run.*	*No corras.* *No corra.* *No corran.* *(Not run* or *no ru*
	Do not push.	*No empujes.* *No empuje.* *(Not push* or *no*
In English *am, is* and *are* plus the *-ing* form of the verb are used to express the present progressive. Spanish has both the present progressive tense and the customary present tense, but in many instances they are interchangeable depending on the situation.	*I am painting now.*	*Yo pinto ahora.* *(I paint now.)* *Yo estoy pintand* *(I am painting no* *I painting now*
In English the article *a* is used in front of nouns indicating professions, occupations, or status. The Spanish pattern does not require the indefinite article in the pre-noun position.	*The man is a carpenter.*	*El hombre es car* *(The man is carp*
	The woman is a nurse.	*La mujer es enf* *(The woman is n*
	The girl is a pupil.	*La muchacha es* *(The girl is pupil*
In English the possessive adjective is used to designate parts of the body and articles of clothing. Spanish does not.	*My head hurts.*	*Me duele la cabe* *(The head hurts* *the head hurt*
	His hair is black.	*El pelo de él es* *(The hair of him*
When using titles in English, the definite article is omitted. In Spanish *el, la,* or *al* precedes the title.	*Mrs. Holmes is here.*	*La señora Holme* *(The Mrs. Holme*
	I see Dr. Fox.	*Yo veo al doctor* *(I see the Dr. Fo*
The prepositions *in, on,* and *at* are used in English in special situations that cause difficulty for the Spanish speaker. *In* and *on* are often interchanged because Spanish speakers may use the one form *on* in both situations.	*The ball is in the box.*	*La bola está en l* *(The ball is in th*
	I live on Madison Street.	*Yo vivo en la cal* *(I live in the Stre*
	I live at 139 Madison Street.	*Yo vivo en el 13* *Madison.* *(I live in the 139* *Madison.)*
English uses a form of the verb *be* in many expressions. Spanish uses a form of the verb *have* for expressing the corresponding idea.	*I'm thirsty.*	*Yo tengo sed.* *(I have thirst.)*
	He's eight.	*El tiene ocho añ* *(He has eight ye*

Order and Grammatical Structure (continued)

English	Spanish
Do not run.	*No corras.* *No corra.* *No corran.* *(Not run* or *no run.)*
Do not push.	*No empujes.* *No empuje.* *(Not push* or *no push.)*
I am painting now.	*Yo pinto ahora.* *(I paint now.)* *Yo estoy pintando ahora.* *(I am painting now* or *I painting now.)*
The man is a carpenter.	*El hombre es carpintero.* *(The man is carpenter.)*
The woman is a nurse.	*La mujer es enfermera.* *(The woman is nurse.)*
The girl is a pupil.	*La muchacha es estudiante.* *(The girl is pupil.)*
My head hurts.	*Me duele la cabeza.* *(The head hurts me* or *the head hurt me.)*
His hair is black.	*El pelo de él es negro.* *(The hair of him is black.)*
Mrs. Holmes is here.	*La señora Holmes está aquí.* *(The Mrs. Holmes is here.)*
I see Dr. Fox.	*Yo veo al doctor Fox.* *(I see the Dr. Fox.)*
The ball is in the box.	*La bola está en la caja.* *(The ball is in the box.)*
I live on Madison Street.	*Yo vivo en la calle Madison.* *(I live in the Street Madison.)*
I live at 139 Madison Street.	*Yo vivo en el 139 de la calle Madison.* *(I live in the 139 of the Street Madison.)*
I'm thirsty.	*Yo tengo sed.* *(I have thirst.)*
He's eight.	*El tiene ocho años.* *(He has eight years.)*

Dissimilar Patterns in Word Order and Gra

Dissimilar Patterns

English uses inversion of the subject and forms of the verb *be* and auxiliary verbs to ask questions. Although Spanish also uses the device of inverting the subject and the verb for questions, Spanish-speaking children often use the rising intonation without inversion as the means for indicating a question.

Is the

Can M

In English the structural words *do, does,* and *did* are used to ask questions. Spanish inverts the subject and the verb or simply uses the rising intonation to indicate this type of question. In Spanish, the rising intonation is the clue to the question, whereas in English the rising intonation is optional. That is, intonation can be either up or down. The clue to the question in English is the position of the words *do, does,* and *did.*

Do the

Does t

Did the

In English the introductory words *when, where, why,* and *what* followed by the auxiliaries *do, does, did* are used in questions with the subject and verb in regular order. Spanish uses the question word followed by the verb and the subject in inverted order. No auxiliary comparable to *do, does,* or *did* is used.

Where
live?
When d

Dissimilar Patterns in Word Order and Grammatical Structure (continued)

Dissimilar Patterns	English	Spanish
English uses inversion of the subject and forms of the verb *be* and auxiliary verbs to ask questions. Although Spanish also uses the device of inverting the subject and the verb for questions, Spanish-speaking children often use the rising intonation without inversion as the means for indicating a question.	*Is the boy here?*	*¿El muchacho está aquí?* *(The boy is here?)*
	Can Mary go?	*¿Mary puede ir?* *(Mary can go?)*
In English the structural words *do, does,* and *did* are used to ask questions. Spanish inverts the subject and the verb or simply uses the rising intonation to indicate this type of question. In Spanish, the rising intonation is the clue to the question, whereas in English the rising intonation is optional. That is, intonation can be either up or down. The clue to the question in English is the position of the words *do, does,* and *did.*	*Do the girls study?*	*¿Las muchachas estudian?* *(The girls study?)*
	Does this boy paint?	*¿Este muchacho pinta?* *(This boy paints?)*
	Did the girls leave?	*¿Las muchachas salieron?* *(The girls left?)*
In English the introductory words *when, where, why,* and *what* followed by the auxiliaries *do, does, did* are used in questions with the subject and verb in regular order. Spanish uses the question word followed by the verb and the subject in inverted order. No auxiliary comparable to *do, does,* or *did* is used.	*Where does your teacher live?*	*¿Dónde vive su maestro?* *(Where lives your teacher?)*
	When did the game begin?	*¿Cuándo empezó el juego?* *(When began the game?)*

Reference and Research Suggestions

Persons desiring to pursue in greater depth the topics discussed in this article are referred to the following books:

Brooks, Nelson. *Lauguage and Language Learning*, 2nd edition. New York: Harcourt, Brace, and World, 1964.

Gleason, H. A., Jr. *An Introduction to Descriptive Linguistics.* New York: Holt, Rinehart and Winston, 1961.

Finocchiaro, Mary. *English as a Second Language: From Theory to Practice.* New York: Regents Publishing Company, 1964.

———. *Teaching English as a Second Language.* New York: Harper & Row, 1969.

Fries, Charles C. *Teaching and Learning English as a Second Language.* Ann Arbor, Michigan: University of Michigan Press, 1953.

Lado, Robert. *Language Teaching, A Scientific Approach.* New York: McGraw Hill, Inc., 1964.

Ohannessian, Sirarpi (ed.). *Reference List of Materials for English as a Second Language. Part I: Texts, Readers, Dictionaries, Tests.* Washington, D. C.: Center for Applied Linguistics, 1964.

Pike, Kenneth L. *The Intonation of American English.* Ann Arbor, Michigan: University of Michigan Press, 1945.

Facts in Faces

Aprender el inglés es una tarea dificul
para el niño cuyo idioma natal es el espa
Las fotografías en las páginas 12-17 si
de evidencia. Cada una describe a un
migrante diciendo, o estudiando como d
palabras en inglés.

Learning English is not easy for a c
whose primary language is Spanish.
fact can often be seen in their faces.
evidence, look at the photographs on pa
12-17. Each depicts a migrant child sa
or pondering how to say words in Eng

Can you read the first paragraph ora
Do you understand it? Unless you k
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and skipped to the second paragraph. T
with a glance upward, decided it was
English translation.

Migrant teachers must understand
problems faced by children learning
lish as a second language. They must
understand that the solution to these p
lems includes special approaches to
teaching of English. Spanish-speaking
grant children can be helped best if teac
concentrate on oral language instruc
first and leave "textbook" language inst
tion for later.

Suggestions

rsue in greater depth
is article are referred

and Language Learn-
ork: Harcourt, Brace,

oduction to Descriptive
Holt, Rinehart and

as a Second Language:
. New York: Regents
64.

s a Second Language.
ow, 1969.

and Learning English
Ann Arbor, Michigan:
ress, 1953.

Teaching, A Scientific
cGraw Hill, Inc., 1964.

). *Reference List of*
s a Second Language.
s, Dictionaries, Tests.
nter for Applied Lin-

tonation of American
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Facts in Faces

Aprender el inglés es una tarea dificultosa para el niño cuyo idioma natal es el español. Las fotografías en las páginas 12-17 sirven de evidencia. Cada una describe a un niño migrante diciendo, o estudiando como decir, palabras en inglés.

Learning English is not easy for a child whose primary language is Spanish. This fact can often be seen in their faces. As evidence, look at the photographs on pages 12-17. Each depicts a migrant child saying or pondering how to say words in English.

Can you read the first paragraph orally? Do you understand it? Unless you know Spanish, you probably looked perplexed and skipped to the second paragraph. Then, with a glance upward, decided it was an English translation.

Migrant teachers must understand the problems faced by children learning English as a second language. They must also understand that the solution to these problems includes special approaches to the teaching of English. Spanish-speaking migrant children can be helped best if teachers concentrate on oral language instruction first and leave "textbook" language instruction for later.

BENITO RODRÍGUEZ
Language Consultant
Public Schools
El Paso, Texas

I Am Who I

(The Future of the Mexican American

Benito Rodrígu

Some persons argue that a study of history, plus the prevailing situation of a people, can give a fairly accurate picture of what is in store for that particular group. My sincere wish is that such a method will prove unsuccessful when applied to American citizens of Mexican ancestry. I prefer to view the future of the Mexican American with an optimistic eye, with confidence that the democratic principles of our country will help him achieve the economic and social equality that is guaranteed to all Americans.

The Man: A Brief Background

The Mexican American has inherited, much to his discomfort, many of the negative traits of his Spanish and Aztec forefathers – the *hidalgo*[1] pride of the Spaniard *(el hambre lo tumba pero el orgullo lo levanta)*[2] and the mercurial temperament of the Indian. The Spanish priests taught him humility and sub-

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I Am Who I Am

(The Future of the Mexican American—With An Optimistic Eye)

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Countless "leaders" through the ages have taken advantage of the Mexican. Time and again *los de abajo*[3] have tried to take a step upward only to find that the rungs in the socio-economic ladder had been sawed off by the conquistador, the viceroy, the *criollo,* the priest, the *cacique*, the Juarista, the Porfirista, and the PRIista.[4] The old tale, "the rich get richer and the poor . . . they are well, thank you," has been perpetuated.

[1]noble

[2]He drops from hunger, but his pride picks him up.

[3]the underdogs, the oppressed

[4]the conqueror, the governor, the Spaniards born in Mexico, the priest, the political boss, the followers of Benito Juaréz, the supporters of Porfirio Diaz, and the present government leaders

The history of the common Mexican is and has been one of betrayal. By tradition he is the victim. Again and again he has been invited to participate in a game without being given the benefit of knowing the rules – a case of "We will let you know when you lose."

In an effort to better his lot he crossed over to the United States – lured by the legend of equality, success stories, and the complete gamut of vaunted democratic values. Here he has been encouraged and sometimes forced to learn the textbook version of the "American Way of Life." Instead, he has learned that credibility gaps are not the exclusive property of the Mexican power class. His sorrow has been compounded if he has lived in certain states of the Southwest, where by historical tradition he has been considered a second class citizen and discriminated against most often by those who are themselves considered "trash" by many of their neighbors.

The Child: His Divided Loyalties

A Mexican American child who belongs the disadvantaged class usually suffers pain of divided loyalties. In school he expected to function in English. At hom when he speaks English, he is ridiculed "showing off."

He soon learns that in the land of the fr the color of your skin and your accent help brand you as "different." Though scho teaches him that anyone can become preside of the United States no matter how poor might have been, he discovers that this not been true for Jews, Negroes, and ur lately Catholics.

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The Child: His Divided Loyalties

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The Mexican American child – like the Negro child – soon discovers that discrimination is considered a dirty word, especially by those who practice it, but will not admit it. When he becomes personally aware of certain realities, he sadly concludes that there are some who, by reason of skin color or surname, are considered more equal than others.

The Educator: Suggested Lines of Perspective

Regardless of how much an educator loves his country, he must not allow that love to blind him to her faults, and they are many. A country that has love for only a chosen few is like a parent who favors one son over another, thereby planting the seed of discord which eventually destroys that family through jealousy and hate.

Admittedly this is a sad commentary on the state of the Mexican American, our second largest minority. Nevertheless it is true and each educator must try to extend his lines of perspective in the sincere belief that he can contribute to an enlightened future for Mexican American children. He can achieve this goal through an awareness of the great potential of a pluralistic society in contributing to the growth and greatness of our nation.

The School: A Carrier for Cultural Pluralism

All of us should consider the value inherent in the contributions of the different racial and ethnic groups that make up this United States. As educators we must become aware that it is the function of the school to find ways and means to contribute to and utilize the potential richness of our varied cultures. The school — as the carrier and communicator of culture — must search for and promote whatever methods are found feasible to stimulate a sense of belonging, of dignity and self-respect, in every child in our country. Also, the school can and must help all children to understand and appreciate the beauty of cultural diversity.

If we assume that the greatness of our country is known throughout the world, then we must also be ready to assume that this greatness is largely due to cultural pluralism. We are also aware that this greatness is threatened from both within and without. Now is the time for our schools to incorporate cultural pluralism into the educational structure, and in so doing, enhance and support the strength of our country.

The Mexican American child presents our schools with a worthy challenge: Can we educate him to become a responsible citizen, without in any way belittling his cultural heritage? Indeed, this is the kind of challenge that only our educational system, which is based on the purest democratic principles, can dare to undertake and be sure of success.

The progress of our country has been and is characterized by a series of conflicts based on what appeared at the time to be inherent differences. The feminist movement resulted in the right to vote for women. The labor movement resulted in better wages and humane working conditions for the working man. Who can deny that our country is now stronger and greater as a result of these struggles for social and economic equality? As educators

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and communicators of culture, it is our duty to make the needs of the culturally different child known and met by our school systems. In the process of educating the Mexican American child we can turn a potential conflict into an asset that will result in benefit for all concerned.

The United States has become a world leader, not by chance, but by a monumental effort of national will power and hard work. This role has placed an enormous amount of responsibility on every one of us. We have the enviable opportunity to contribute to the greatness of our country, if we recognize and utilize the cultural and linguistic diversity of our fellow citizens as a means to achieve mutual understanding and respect with the rest of the world.

We are a proud country, and especially proud of our belief in the principle of equal educational opportunity for all. In order that we can help perpetuate this principle, the quality of our educational processes must reflect and stimulate the feeling of ethnic pride among the diverse cultural elements in our society. Our very existence as a nation may well depend on our prompt recognition of this principle. We have welcomed varied human resources from throughout the world, but the fiber of our nationhood can only be strengthened if we protect those same human resources.

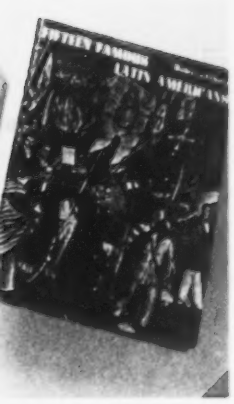
The school – when recognizing the merits of cultural diversity as the basis for the formation of a positive and self-respecting student – must provide him with a framework of experiences that will help him achieve a positive self-image, an image that will find expression in positive actions for his benefit and that of society. If we multiply this effect and project it, we can foresee a contribution to a more harmonious societal interaction based on mutual understanding. We can foresee the future of the Mexican American with an optimistic eye – if we help him in such a way that he can proudly say, "I am who I am."

Books, including ones related to cultural heritage

Music and dances, as the Mexican Hat Dance

Field trips to local points of interes the case above, a cannery

Kits, including ones on career opportunities



cultural heritage

Field trips to local points of interest — in the case above, a cannery

Favorite foods, perhaps tacos or enchiladas

Kits, including ones on career opportunities

Posters, such as this one focusing on cultural pluralism

J. DOUGLAS DICKINSON
Director
Glen Helen Outdoor Education Center
Yellow Springs, Ohio

I See, I Touch

(Outdoor Education Reso

Migrant children, inner-city children, suburban children, farm children, all children can benefit from outdoor education experiences. And, long field trips and expensive materials are not necessary.

J. Douglas Dickinson, Director of the Glen Helen Outdoor Education Center, firmly believes that many opportunities for developing *ecological concepts* exist on any school site. He further believes that any classroom teacher can conduct outdoor education activities.

The suggestions in this article are ones that Mr. Dickinson and the Glen Helen teacher-naturalists discussed with conference participants.

School Site Resources

Some school sites – because of larger school grounds, adjoining parks, or open areas – have excellent outdoor teaching-learning possibilities. Every school has common resources and outdoor education potential. Resources often include:

- Play areas of grass, bare soil, or blacktop
- Lawn areas containing crab grass, wild onion, and other plant life
- Trees and shrubs including deciduous varieties which lose their leaves in winter and coniferous or evergreen varieties
- Tree stumps cut by hand or power tools
- Sidewalks, telephone poles, wooden posts, drainage areas, and culverts
- Parking areas covered with crushed rock or blacktop
- Buildings with brick or stucco exteriors
- Soil, silt, gravel, rocks, and cinders
- Relatively flat or gently sloping land
- Evidence of erosion

Center

I See, I Touch, and I Try

(Outdoor Education Resources and Activities)

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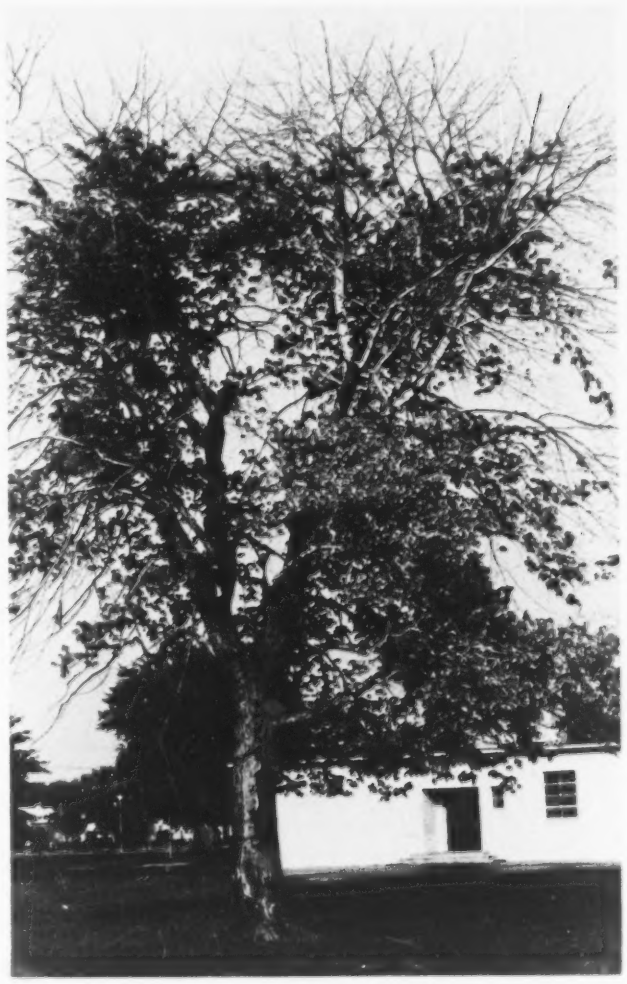


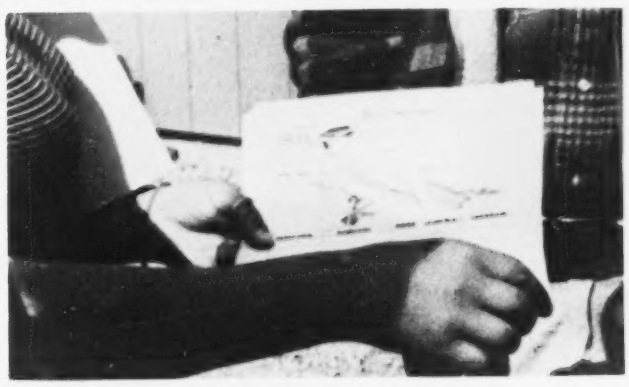
Easily Made or Inexpensive Equipment

Much of the equipment needed for outdoor education experiences can be made from readily available scrap or inexpensive materials. Many other items can be borrowed or purchased quite inexpensively. In addition

to usual school supplies, consideration might be given to the following:

Clipboard. Use a piece of ⅛" masonite, 9¼" x 11¾" with a rubber band.

Data Sheets. Develop and duplicate various worksheets for students to use while outdoors.



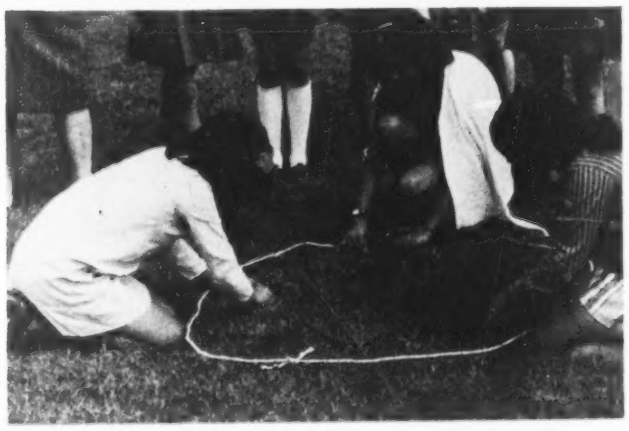
Specimen Bags. Use clear plastic bags of various sizes.

10X Hand Lens. Obtain locally, or for about $1.00, order #61494 from Magnifier-Forestry Suppliers, Inc., P.O. Box 8397, Jackson, Mississippi 39202.

Magnifying Glass or Pocket Magnifier. Obtain locally. One of these may be better than a hand lens for use by primary children.

Microscope or Bioscope. Borrow within the school or buy from a school supply house.

"I Found Circle." Form a circle with a 24" to 36" piece of string or with a wire hanger.



Compass. Use the liquid-filled variety.

Weatherproofing. Obtain a clear plastic spray such as Krylon. The school librarian may have some that you can use.

Protective Paper. Get eighteen-inch rolls of clear contact paper.

Aquatic Net. Use a piece of metal door screen about 7" square.

Aquatic Scope. Tape 3 or 4 soda cans together with masking or electrical tape. Attach a piece of clear plastic to one end, using rubber bands to hold it in place.

Portable Aquarium. Use a clear plastic bag.

Insect Net. Obtain quality netting, such as nylon. Attach a hoop to a handle with strong tape or hose clamps. Fasten netting to the hoop.

Plaster Cast Track Kit. Use a plastic bag, a can of plaster of paris, and water in shampoo tubes. Mix two parts plaster of paris to one part water in the bag.

Soil Diggers. Obtain a garden trowel and a small scratcher.

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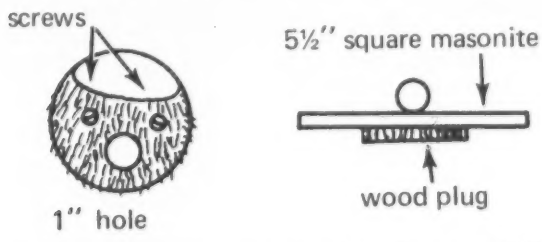
Soil Auger. Use a wood bit (hand-drill variety). A handle can be devised, if desired.

Soil Test Kit. Contact your local soil conservation agent to see if he has complimentary kits or get ph papers from the high school chemistry teacher. Get instructions for use, also.

Wren Bird House. Materials needed are a coconut, a 5½" square masonite top, a wood plug, one ½" screw eye, and two 1" screws.



Bird Feeders. Use your imagination. One possibility is a net bag filled with field corn or suet. Other simple feeders can be made from pine cones, coconut halves, holes drilled into a small log, or similar containers. For food try a mixture of seeds, vegetable shortening, peanut butter, and bacon fat.

Weather Instrument Shelter. For a moveable box for holding weather instruments indoors or out, use three 9" x 15" shutterettes plus a solid pine back, bottom, and top. Mount on a post.

Wind Measurer. Check a weather book to find directions for making a simple anemometer.

Bird Feather Vane. Put a needle through a six-inch feather. Use a drinking straw for a holder.

Splash Board. Use a white board or white piece of cardboard. Place at ground level.

Hygrometer. Attach a one-inch shoelace wick to a conventional thermometer.

Tree Diameter Tape. Use two layers of ¾" or 1" masking tape (or other suitable tape) 8' long. Put sticky side to sticky side. Use a tack to maintain a starting point. Mark one side in inches and feet to measure circumference. Mark the other side in 3 1/7" units to measure diameter.

Biltmore Stick. Write to the Forest Service, U. S. Department of Agriculture, Washington, D. C. for this timber-cruising device for estimating tree diameter and board footage. Ask for free Biltmore Sheets. Glue to a lath ¼" x 2" x 28".

Mapping Table. Get a plywood top, ½" x 2' x 2'. Attach aluminum legs and fittings with brass screws.

Inclinometer. Mount a small protractor to a 3" x 15" piece of plywood. Attach a wire pendulum.

Star Chart. Buy one with a rotating disc.

Star Pointer. Use a 6-cell flashlight or a portable automobile spotlight.

Star Scope. Make with three cardboard tubes. Use two tubes that are 10"-12" in length and one tube that is shorter. Bind together with tape.

Outdoor Education Activities

To benefit from outdoor education activities a student must have opportunities to see, touch, and try. While he is exploring every child should have something in his hand or pocket – pencil, paper, specimen bag, hand lens, digger, or ruler.

Teacher preparation and follow-up are musts. Otherwise, the full impact and value of outdoor experiences will not be realized. Keep in mind also that experiences should be correlated with classroom activities. Suggestions include helping students to do the following:

Trees and Shrubs

Sketch tree shapes or silhouettes.

Estimate tree heights in relation to pupils.

Study bark patterns, textures, and colors.

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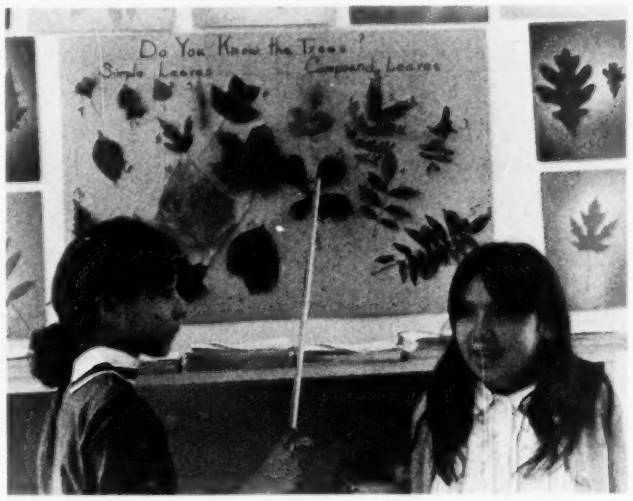
Study bark patterns, textures, and colors.

Find root systems exposed by erosion.

Compare deciduous and coniferous tree characteristics.



Examine fruits, seeds, buds, leaf scars, leaves, and roots.

Measure distance around (circumference) and distance through the center (diameter) with a tree diameter tape.

Compare trees and shrubs.

Test bark thickness.

Discuss ways that trees are useful to man.

Stumps and Posts

Determine the method used in cutting and possible reasons for cutting.

Rub growth rings with pencil or crayon on paper to get an impression or tracing.

Find clues that show what forces are acting on the stump.

Find evidence of decay and insect life.

Compare untreated wood with wood that has been painted or treated with other preservatives.

Figure out why posts have been put into the ground in certain locations.

Grasses and Other Low Vegetation

Find effects of people, animals, sunlight, shade, wind, and water on plant growth.

Find unusual locations where plants are growing (cracks in sidewalks, sides of buildings, tree stumps).

Taste a wild onion, the tip of a red clover blossom, or a timothy stem.

Find effects of plants on erosion and erosion on plants.

Study small, measured plots of ground to strengthen observational skills.

Toss an "I Found Circle" on a lawn and study the plants within the ring.

Rub plant pigments on sandpaper and examine.

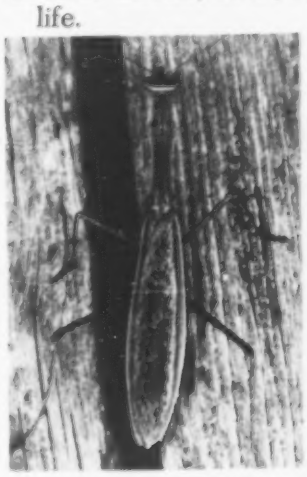
Keep records of the heights of growing plants with strips of colored paper. Glue strips to a piece of cardboard to make a growth graph.

Study the roots of grass or other plants by carefully washing away the soil.

Compare how seeds travel from place to place.

Animal Life

Observe insects, birds, squirrels, and other animal life.



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Animal Life

Observe insects, birds, squirrels, and other animal life.

Find animal homes under logs and rocks, in tree bark, in holes in trees, and in nests.

Find tracks in the mud, including human, and take plaster of paris casts of them.

Find other evidence of animal life – cocoons, droppings, borings, earthworm holes, beetle borings, etc.

Establish bird feeding stations near a window.

Keep records of when birds arrive.

Notice how carelessly dropped food is quickly eaten or carried away by various animals.

Soil and Water

Compare sizes of soil particles. Shake soil in a jar of water and let it settle.

Compare colors of soils in different places.

Smell soil to find out if it has an odor.

Compare color and moisture of soil from the surface to two feet deep. Use a soil auger.

Measure soil compaction in different places. Use a stick or pencil to see how much of a hole you can make.

Find out how fast water soaks into the ground in different places. To do this a bottomless tin can be sunk into the ground.

Compare erosion at different places on the school ground. Note evidence of erosion – deltas, gullies, exposed roots.

Examine soil with a hand lens or magnifying glass. Separate the parts of soil into piles of the same material – pebbles, roots, leaves, sand.

Listen to different soils when held to the ear and rubbed between the fingers.

Measure the temperature of the soil in different spots.

Squeeze samples of different kinds of soil together to see if they form a ball.

Collect muddy water from a puddle or drainage ditch. Allow the suspended soil to settle to the bottom. Compare the amounts of soil in different places.

Pour some water into a jar of soil. Notice the air bubbles that rise to the top.

Measure root exposure of the depth of gullies with strips of paper. Paste them to a piece of cardboard to record measurements of soil erosion in different places.

Compare plant growth in different kinds of soils.

Rocks and Minerals

Make soil by rubbing two rocks together.

Scratch rock on sandpaper or unglazed porcelain tile for color streak.

Examine a rock with a hand lens to see the size and texture of the particles.

Test rocks for hardness by rubbing two rocks together to see which one makes a scratch in the other.

Observe if the surface of the rock or mineral reflects light or appears to have a luster.

Arrange rocks according to color, texture, hardness, luster, or other characteristic.

Find rocks that break differently by comparing edges.

Find rocks that have been worn smooth by water or cracked by weather. Compare a freshly broken surface with a weathered one.

Compare man-made rock (bricks or blocks) with natural rock.

Compare the weights of the different kinds of rocks of the same size.

Find different kinds of fossils.

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Scratch rock on sandpaper or unglazed porcelain tile for color streak.

Examine a rock with a hand lens to see the size and texture of the particles.

Test rocks for hardness by rubbing two rocks together to see which one makes a scratch in the other.

Observe if the surface of the rock or mineral reflects light or appears to have a luster.

Arrange rocks according to color, texture, hardness, luster, or other characteristic.

Find rocks that break differently by comparing edges.

Find rocks that have been worn smooth by water or cracked by weather. Compare a freshly broken surface with a weathered one.

Compare man-made rock (bricks or blocks) with natural rock.

Compare the weights of the different kinds of rocks of the same size.

Find different kinds of fossils.

Make impressions of fossils in clay.

Find where plants are growing on and slowly breaking down rocks.

Survey the different kinds of rocks on the school grounds.

Find rocks that show signs of rusting.

Discuss ways that rocks are useful to man.

Sidewalks, Blacktop Areas, and Driveways

Examine what surfaces are made from and how they are made.

Find plants growing in cracks.

Find wearing away by forces of weather and by people.

Find soil washed onto surfaces and determine where it came from.

Find where tree roots have pushed up surfaces.

Study where sidewalks have been placed and where they are needed.

Weather

Compare cloud formations.

Determine wind speed by observing flag movement or using a wind measurer.

Find where the plant and animal life is
abundant.

Find evidence of water pollution.

Examine the turbidity (muddiness or roili
of the water.

Discover if shade changes the water environ

Determine the acidity and alkalinity of the
and the soil along the shore or bank.

Mark off the watershed of a pond.

Figure the surface area and volume of a pon

Shadows

Estimate the length of shadows in relatio
objects casting them.

Mark the position of shadows on the ground
chalk or sticks. Note the change in length
position after a few minutes and a few h
Discuss why shadows move.

Compare shadows cast by the flag pole, p
trees, persons, buildings, etc.

Compare shapes of shadows with the ob
casting the shadows.

Observe how shadows fall according to the
tion of the sun.

Determine wind direction with a balloon or a bird feather vane.

Compare effects of objects such as buildings or vegetation on wind.

Explore differences in temperature in different places on the school ground (small climate areas).

Determine relative humidity of the air. Have pupils check a science book to learn how to use a hygrometer.

Study the effect of rain on soil erosion. Set up splash boards and water the soil with a watering can.

Trace rain that falls on the school building. Discuss where it goes – roof, gutter, drain culvert, etc.

Examine school buildings for weathering of bricks, wood, and paint.

Illustrate air pollution by holding a clean cloth in the path of smoke.

Observe where a puddle has dried up.

Observe where ice or snow is melting.

Ponds and Streams

Use an aquatic net to study pond and stream plants and animals. When you agitate rocks, organisms will flow into the net.

Find the average depth of the pond or stream.

Make a simple map of the pond or stream.

Find the temperature of the water in different places and at different levels.

Use a hand lens and microscope to discover microorganisms.

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Find evidence of water pollution.

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Discover if shade changes th nvironment.

Determine the acidity alka of the water and the soil along the ore or ank.

Mark off the watershed of a pond.

Figure the surface area and volume of a pond.

Shadows

Estimate the length of shadows in relation to objects casting them.

Mark the position of shadows on the ground with chalk or sticks. Note the change in length and position after a few minutes and a few hours. Discuss why shadows move.

Compare shadows cast by the flag pole, posts, trees, persons, buildings, etc.

Compare shapes of shadows with the objects casting the shadows.

Observe how shadows fall according to the position of the sun.

Art Suggestions

Find "lines" in the environment such as circles (sun, moon, berries, woodpecker holes), zig-zags (tree rings, edges of leaves, buildings, and trees on the horizon), wavy lines (path of a brook, ripples of water, soil), straight lines (tree trunks, veins in a leaf, pine needles, blades of grass) and other shapes.

Illustrate movement with lines that show how different birds fly, how branches wave in the wind, or how clouds move in the sky.

Use dots, light lines, dark lines, zig-zags, spirals, straight and wavy lines to suggest wind in grass and trees, a squirrel's or dog's bark, the sound of a stream.

Rub rocks, sticks, and leaves on sandpaper to create designs with color.

Draw and describe the texture of tree bark, stumps, blades of grass, feathers, sidewalks, etc.

Construct collages from natural materials such as cones, pebbles, twigs, or leaves.

Miscellaneous Activities

Encourage students to use a 10X hand lens or magnifying glass to open up a new world.

Write round-robin stories of observations. If possible, have a student do the recording.

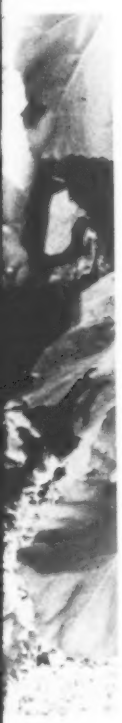
Calculate the heights of trees, buildings, and flagpoles.

Help beautify the school grounds by corr erosion problems and planting trees, gras flowers.

Collect litter from the school grounds and d it before the entire student body.

Plan, plant, and harvest a garden.

Make simple maps of the school grounds.



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Help beautify the school grounds by correcting erosion problems and planting trees, grass, and flowers.

Collect litter from the school grounds and display it before the entire student body.

Plan, plant, and harvest a garden.

Make simple maps of the school grounds.

Learn to determine direction with a compass.

Conduct a scavenger hunt to locate, not necessarily collect, specified items.

Have a five-senses hike with students recording what they see, hear, feel, taste, and smell.

Make self-guided tour booklets of school grounds, possibly one for spring and one for fall.